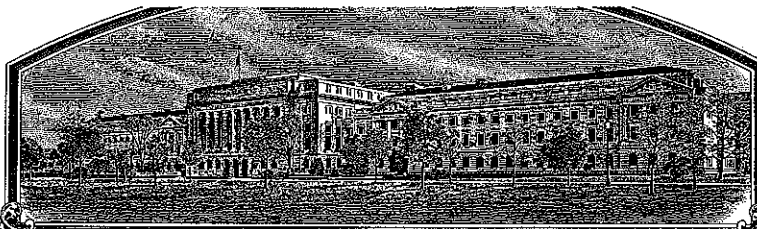


No.

200600236



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Syngenta Seeds, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE FOREGOING PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'NuGrain'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this sixth day of December, in the year two thousand and six.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture



U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE
APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER Syngenta Seeds, Inc.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER W96-530-03W	3. VARIETY NAME NuGrain
4. ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country) 6515 Ascher Road Junction City, Kansas 66441		5. TELEPHONE (include area code) 785-210-0218	FOR OFFICIAL USE ONLY PVPO NUMBER 200600236 FILING DATE July 13, 2006
		6. FAX (include area code) 785-210-0231	
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM ORGANIZATION (corporation, partnership, association, etc.) Corporation	8. IF INCORPORATED, GIVE STATE OF INCORPORATION Delaware	9. DATE OF INCORPORATION 2000	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) Dr. Rollin Sears 6515 Ascher Road Junction City, Kansas 66441		Copy to : Chris Bruns PO Box 30 Berthoud, CO 80513 rbruns@friti.com	
		FILING AND EXAMINATION FEES: FEE \$ 3652.00 @ 730.00 REC DATE 7/13/06 @ 8/14/2006 CERTIFICATION FEE: \$ 768.00 DATE 10/13/06	

11. TELEPHONE (Include area code) 785-210-0218	12. FAX (Include area code) 785-210-0231	13. E-MAIL rollin.sears@agrip.com
14. CROP KIND (Common Name) Hard White Winter Wheat	16. FAMILY NAME (Botanical) Gramineae	18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
15. GENUS AND SPECIES NAME OF CROP Triticum aestivum	17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERCIALIZATION.
19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$3,652), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)		20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) <input checked="" type="checkbox"/> YES (If "yes", answer items 21 and 22 below) <input type="checkbox"/> NO (If "no", go to item 23) 21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED 22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)
23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)
25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.		

SIGNATURE OF OWNER Dr. Rollin Sears		SIGNATURE OF OWNER Chris Bruns	
NAME (Please print or type) Dr. Rollin Sears		NAME (Please print or type) Chris Bruns	
CAPACITY OR TITLE R&D Manager	DATE 8/5/06	CAPACITY OR TITLE	DATE

(See reverse for instructions and information collection burden statement)

will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvpo/pvp.htm>

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To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that name has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, 10301 Baltimore Avenue, Suite 401 NAL Building, Beltsville, MD 20705. Telephone: (301) 504-5682 <http://www.ams.usda.gov/lsg/seed.htm>.

ITEM

- 19a. Give:
- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
 - (2) the details of subsequent stages of selection and multiplication;
 - (3) evidence of uniformity and stability; and
 - (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
20. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See *Regulations and Rules of Practice, Section 97.103*).
23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

The variety 'NuGrain' will be constituted from Breeders seed, and proceed through Foundation, Registered and Certified in succeeding generations. Generations which may be multiplied will be limited to Breeders seed, Foundation, Registered and Certified.

23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

Limited quantities of Foundation seed were made available in September of 2005. Certified seed stocks of NuGrain will be available in the Fall of 2006.

24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the *Regulations and Rules of Practice*.)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

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Exhibit A.
Origin and Breeding History of NuGrain

NuGrain is a cross between Platte/W92-456W. The cross was made in 1996. Platte is a hard white winter wheat released by AgriPro in 1996. W92-456W is a breeding line. It was derived from the cross W81-133-3/87F26915. W81-133-3 was derived from the cross Vona/W76-1141. 87F26915 was derived from the cross 84PYI034-004/W81-133-3. 84PYI034-004 was derived from the cross Oro Blanco and an unknown experimental line. 96x530W was grown in the greenhouse in 1996 and F2 seed planted at Nardin, Oklahoma in 1997. F3 bulked seed was cleaned using a gravity table and space planted at Berthoud, CO in 1998. Plants were selected based upon plant height and maturity. F4 plant rows were planted in Wichita, KS in 1999. 96x530W was selected based upon improved disease resistance compared to Platte. It was yield tested in preliminary, advanced and elite trials during the years 2000-2005. It has been tested as GM 10006 in Kansas, Colorado and Nebraska state yield trials in 2005.

In 2001 seven progeny plots were grown in Berthoud, Colorado of which three were selected and designated 96x530-03W. In 2002 a 0.1 acre initial Breeders seed increase was grown in Berthoud, Colorado. In 2003, a two acre Breeders seed increase was grown in Lucerne, Colorado which produced 8,510 pounds of Breeders seed.

NuGrain has been uniform and stable since 2002. Less than 0.8% of the plants were rogued from the Breeders seed increase in 2003. Approximately 90% of the rogued variant plants were taller height wheat plants (8 to 15 cm). Up to 1% variant plants may be encountered in subsequent generations. A red seed variant has been identified in the Breeders seed and production plots and up to 0.8% may be encountered in subsequent generations.

Exhibit B.
Statement of Distinctness

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NuGrain is most similar to the hard white winter wheat 'NuHills'. However it can be distinguished by the following characteristics:

- NuGrain has a strap head shape (Berthoud, CO 2002; Lucerne, Colorado 2003). NuHills has a tapering head shape (Berthoud, CO 2002; Lucerne, Colorado 2003).
- NuGrain has an oblique shoulder shape on the glume (Berthoud, CO 2002; Lucerne, Colorado 2003). NuHills has a square shoulder shape on the glume (Berthoud, CO 2002; Lucerne, Colorado 2003).

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (*Triticum* Spp.)

NAME OF APPLICANT(S) Syngenta Seeds, Inc.	FOR OFFICIAL USE ONLY PVPO NUMBER 200600236
ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 6515 Ascher Road Junction City, Kansas 66441	NAME OR EXPERIMENTAL DESIGNATION NuGrain

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in the first box when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized standard may be used to determine plant colors; designate system used.
Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

1=Common 2=Durum 3=Club 4=Other (specify) _____

2. VERNALIZATION:

1=Spring 2=Winter 3=Other (specify) _____

3. COLEOPTILE ANTHOCYANIN:

1=Absent 2=Present

4. JUVENILE PLANT GROWTH:

1=Prostrate 2=Semi-erect 3=Erect

5. PLANT COLOR (boot stage):

1 = Yellow-Green 2 = Green 3 = Blue-Green

6. FLAG LEAF (boot stage):

1 = Erect 2 = Recurved

1 = Not Twisted 2 = Twisted

7. EAR EMERGENCE:

Number of Days Earlier Than Equal to Platte *

Number of Days Later Than _____ *

8. ANTHHER COLOR:

1 = YELLOW 2 = PURPLE

9. PLANT HEIGHT (from soil to top of head, excluding awns):

cm Taller Than Equal to Platte *

cm Shorter Than _____ *

* Relative to a PVPO-Approved Commercial Variety Grown in the Same Trial

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10. STEM:

A. ANTHOCYANIN

☒ 1 1= Absent 2=Present

B. WAXY BLOOM

☒ 2 1=Absent 2=PresentC. HAIRINESS (*last internode of rachis*)☒ 2 1=Absent 2=PresentD. INTERNODE (*specify number*)☒ 1 1=Hollow 2=Semi-solid 3=Solid

E. PEDUNCLE

☒ 1 1=Erect 2=Recurved☒ 1 ☒ 5 cm Length11. HEAD (*at Maturity*):

A. DENSITY

☒ 2 1=Lax 2=Middense 3= Dense

B. SHAPE

☒ 2 1 = Tapering 2= Strap 3 = Clavate 4 = Other (*specify*)

C. CURVATURE

☒ 2 1 = Erect 2 = Inclined 3 = Recurved

D. AWNEDNESS

☒ 4 1 = Awnless 2 = Apically Awnletted 3 = Awnletted 4 = Awned12. GLUMES (*at Maturity*):

A. COLOR

☒ 1 1 = White 2 = Tan 3 = Other (*specify*)

B. SHOULDER

☒ 2 1 = Wanting 2 = Oblique 3 = Rounded 4 = Square 5 = Elevated 6 = Apiculate

C. BEAK

☒ 3 1 = Obtuse 2 = Acute 3 = Acuminate

D. LENGTH

☒ 2 1 = Short (ca. 7mm) 2 = Medium (ca. 8mm) 3 = Long (ca. 9mm)

E. WIDTH

☒ 2 1 = Narrow (ca. 3mm) 2 = Medium (ca. 3.5mm) 3 = Wide (ca. 4mm)

13. SEED:

A. SHAPE

☒ 1 1 = Ovate 2 = Oval 3 = Elliptical

B. CHEEK

☒ 1 1=Rounded 2=Angular

C. BRUSH

☒ 2 1=Short 2=Medium 3=Long☒ 1 1 = Not Collared 2 = Collared

D. CREASE

☒ 1 1 = Width 60% or less of Kernel
2 = Width 80% or less of Kernel
3 = Width Nearly as Wide as Kernel☒ 1 1 = Depth 20% or less of Kernel
2 = Depth 35% or less of Kernel
3 = Depth 50% or less of Kernel

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13. SEED: (continued)

E. COLOR

☒ 1 = White 2 = Amber 3 = Red 4 = Other (specify) _____

F. TEXTURE

☒ 1 = Hard 2 = Soft

G. PHENOL REACTION (see instructions):

☒ 0 = Ivory 2 = Fawn 3 = Light Brown 4 = Dark Brown 5 = Black

14. DISEASE: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

<input checked="" type="checkbox"/> 2	Stem Rust (<i>Puccinia graminis</i> f. sp. <i>tritici</i>) Field races	<input checked="" type="checkbox"/> 2	Leaf Rust (<i>Puccinia recondita</i> f. sp. <i>tritici</i>) Field races
<input checked="" type="checkbox"/> 3	Stripe Rust (<i>Puccinia striiformis</i>)	<input checked="" type="checkbox"/> 0	Loose Smut (<i>Ustilago tritici</i>)
<input checked="" type="checkbox"/> 4	Tan Spot (<i>Pyrenophora tritici-repentis</i>)	<input checked="" type="checkbox"/> 0	Flag Smut (<i>Urocystis agropyri</i>)
<input checked="" type="checkbox"/> 0	Halo Spot (<i>Selenophoma donacis</i>)	<input checked="" type="checkbox"/> 0	Common Bunt (<i>Tilletia tritici</i> or <i>T. laevis</i>)
<input checked="" type="checkbox"/> 0	<i>Septoria nodorum</i> (Glume Blotch)	<input checked="" type="checkbox"/> 0	Dwarf Bunt (<i>Tilletia controversa</i>)
<input checked="" type="checkbox"/> 0	<i>Septoria avenae</i> (Speckled Leaf Disease)	<input checked="" type="checkbox"/> 0	Karnal Bunt (<i>Tilletia indica</i>)
<input checked="" type="checkbox"/> 4	<i>Septoria tritici</i> (Speckled Leaf Blotch) Field races	<input checked="" type="checkbox"/> 0	Powdery Mildew (<i>Erysiphe graminis</i> f. sp. <i>tritici</i>) Field races
<input checked="" type="checkbox"/> 0	Scab (<i>Fusarium</i> spp.)	<input checked="" type="checkbox"/> 0	Snow Molds
<input checked="" type="checkbox"/> 0	Black Point (Kernel Smudge)	<input checked="" type="checkbox"/> 0	Common Root Rot (<i>Fusarium</i> , <i>Cochliobolus</i> and <i>Bipolaris</i> spp.)
<input checked="" type="checkbox"/> 0	Barley Yellow Dwarf Virus (BYDV)	<input checked="" type="checkbox"/> 0	Rhizoctonia Root Rot (<i>Rhizoctonia solani</i>)
<input checked="" type="checkbox"/> 0	Soilborne Mosaic Virus (SBMV) Field races	<input checked="" type="checkbox"/> 0	Black Chaff (<i>Xanthomonas campestris</i> pv. <i>translucens</i>)
<input checked="" type="checkbox"/> 0	Wheat Yellow (Spindle Streak) Mosaic Virus Field races	<input checked="" type="checkbox"/> 0	Bacterial Leaf Blight (<i>Pseudomonas syringae</i> pv. <i>syringae</i>)
<input checked="" type="checkbox"/> 0	Wheat Streak Mosaic Virus (WSMV) Field races	<input type="checkbox"/>	Other (specify) _____
<input type="checkbox"/>	Other (specify) _____	<input type="checkbox"/>	Other (specify) _____
<input type="checkbox"/>	Other (specify) _____	<input type="checkbox"/>	Other (specify) _____
<input type="checkbox"/>	Other (specify) _____	<input type="checkbox"/>	Other (specify) _____

15. INSECT: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

<input checked="" type="checkbox"/> 1	Hessian Fly (<i>Mayetiola destructor</i>)	<input type="checkbox"/>	Other (specify) _____
<input type="checkbox"/> 0	Stem Sawfly (<i>Cephus</i> spp.)	<input type="checkbox"/>	Other (specify) _____
<input type="checkbox"/> 0	Cereal Leaf Beetle (<i>Oulema melanopa</i>)	<input type="checkbox"/>	Other (specify) _____
<input type="checkbox"/> 0	Russian Aphid (<i>Diuraphis noxia</i>)	<input type="checkbox"/>	Other (specify) _____
<input type="checkbox"/> 0	Greenbug (<i>Schizaphis graminum</i>)	<input type="checkbox"/>	Other (specify) _____
<input type="checkbox"/> 0	Aphids		_____

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS:

None

Exhibit D.

Additional Description of NuGrain

NuGrain is a hard white winter wheat variety developed by AgriPro for grain production. NuGrain is a cross between Platte/W92-456W(exp. designation 96x530W). It is a medium height semidwarf variety, awned and has white chaff at maturity. It has medium late maturity, similar to NuHills and excellent straw strength. It has *Septoria triticii* and tan spot tolerance. It has shown resistance to central plains races of leaf rust and stem rust. It is intermediate in reaction to stripe rust. It is susceptible to Hessian Fly. NuGrain has been shown to have equal milling and baking characteristics when compared to NuHills and Platte. NuGrain is high in polyphenol oxidase. NuGrain has intermediate pre-harvest sprouting tolerance, similar to NuHills. NuGrain is adapted to western Kansas, eastern Colorado and southwestern Nebraska.

Juvenile growth habit is semi-erect. Auricle anthocyanin and auricle hairs are present. Plant color at boot stage is blue green. Anther color is yellow. Flag leaf is erect and twisted at boot stage. Head shape is strap and awned. Glume shoulder shape is oblique with an acuminate beak. Glume length is medium and glume width is midwide. Chaff color is white at maturity. Seed shape is ovate. Seed crease depth is shallow and seed crease width is narrow. Seed cheeks are rounded.

Wheat Quality Data:

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Variety	Year	Loc	Wht Prot	Flr Prot	NHrd	FlrYld	Ash	Pk Time	PkHt	Tot	Mix Abs	B Absor	Bake PKTim	Loaf	Grain	Tex	Color	FallNo
GM 10006	2005	IN	14.6	13.6	82	69.7	0.46	5.00	5.00	1327	68.0	68.0	4.7	1140	5	3	3	
GM 10006	2005	IN	14.3	13.1	80	72.7	0.48	4.75	4.75	1307	69.0	68.5	4.5	1095	5	3	3	
GM 10006	2005	KSD	13.7	12.7	71	69.6	0.49	4.00	5.25	1238	66.0	66.0	4.5	1140	4.5	3	3	
GM 10006	2005	MK	12.5	11.6	60	68.8	0.46	4.50	4.75	1206	64.5	64.5	4.2	1025	4	2	3	
GM 10006	2005	MK	14.0	12.7	61	70.9	0.43	4.25	5.00	1267	67.0	67.0	3.8	1050	4	3	3	
GM 10006	2005	SK	11.9	10.6	62	70.6	0.42	4.00	5.00	1285	63.5	63.5	4.4	960	4	3	3	236
GM 10006	2005	SK	13.8	11.6	54	69.9	0.42	4.75	5.00	1205	65.0	65.0	4.9	1060	3	3	3	216
GM 10006	2004	HK	11.2		58													278
GM 10006	2004	HK	11.9		59													299
GM 10006	2004	JC	14.5	13.3	63	71.2		6.50	5.25	1206		66.5	7.2	1085	5	3	3	
GM 10006	2004	JC	14.1	13.2	69	69.5		6.50	5.25	1220		66.5	7.4	1120	4	3	3	
GM 10006	2004	MK	14.5	13.8	86	69.9	0.44	3.50	5.00	801		67.0	3.7	1035	4	3	3	
GM 10006	2004	MK	15.1	14.0	100	62.0	0.50	3.00	5.00	659		66.0	3.1	1015	5	2	3	
GM 10006	2004	SK	13.0	12.1	80	72.0	0.39	6.00	5.00	1070		65.5	5.0	1000	5	3	2	
NUHILLS	2005	IN	13.9	12.7	70	69.2		3.50	5.00	1087	67.0	66.5	3.1	1080	3.5	3	2	
NUHILLS	2005	IN	13.6	12.2	76	69.8	0.48	4.00	5.00	1137	67.5	67.5	3.6	1080	3.5	3	3	
NUHILLS	2005	KSD	12.9	11.9	79	68.2	0.48	3.50	5.00	1206	66.0	66.0	3.8	1125	5.5	2	2	
NUHILLS	2005	MK	14.1	12.6	66	69.0	0.47	3.50	5.00	1033	66.0	66.0	3.0	950	4	3	3	
NUHILLS	2005	MK	13.8	12.5	73	68.9	0.45	3.50	5.00	895	66.5	66.5	3.1	985	4	3	4	
NUHILLS	2005	SK	12.1	10.6	75	69.4	0.41	3.50	5.00	1032	63.0	63.0	3.8	935	3.5	3	3	295
NUHILLS	2005	SK	11.8	10.6	71	68.2	0.40	3.25	5.00	1069	63.5	63.5	3.1	1015	4.5	3	3	321
NUHILLS	2004	HK	14.5		73													284
NUHILLS	2004	HK	13.6		68													324
NUHILLS	2004	JC	13.4	12.1	62	69.0		4.75	5.00	1084		65.5	5.3	1040	5	3	3	
NUHILLS	2004	JC	13.7	12.5	61	68.5		6.00	5.25	1155		66.0	6.7	1000	4	3	2	
NUHILLS	2004	MK	14.5	13.6	92	66.6	0.43	4.50	5.00	845		65.5	4.5	1010	3	3	2	
NUHILLS	2004	MK	14.4	13.5	92	65.6	0.51	2.25	5.00	588		66.0	2.9	875	4	4	4	
NUHILLS	2004	SK	13.5	12.0	89	69.2	0.37	4.00	5.00	1144		65.0	3.6	1005	6	3	3	

NuGrain (96x530W)

Agronomics & Disease characteristics

Barley Yellow Dwarf Virus: n/a
Head scab: n/a
Hessian Fly: susceptible
Leaf Rust: resistant
Stem Rust: resistant
Stripe Rust: intermediate
Septoria leaf blotch: moderately resistant
Tan Spot: moderately resistant
Wheat soil borne mosaic virus: resistant
Wheat spindle streak mosaic virus: intermediate
Wheat streak mosaic virus: moderately resistant

AgriPro rating Source

Coleoptile length: medium	5	AgriPro
Grazing potential: n/a	n/a	
Height: medium	4	AgriPro
Maturity: medium late	4	AgriPro
Preharvest sprouting tolerance: medium	6	AgriPro
Milling & baking quality: good	Good	AgriPro
Protein: good	good	AgriPro
Seed size: average	average	AgriPro
Shattering reputation: very good	3	AgriPro
Straw strength: excellent	2	AgriPro
Test Weight: average	5	AgriPro
Winterhardiness: good	4	AgriPro
Yield Potential where adapted: excellent		AgriPro

Colorado State University Wheat Trials 2005:

200600236

CSU Irrigated Wheat Trials; 2005

	Stratton		Fort Collins		Rocky Ford		3 Location Average	
	Bu/A	TW	Bu/A	TW	Bu/A	TW	Bu/A	TW
Bond CL	82.7	60.9	94.8	59.4	92	58.6	89.8	59.6
Hatcher	91.6	62.2	80.3	58.2	97.2	61.6	89.7	60.7
GM 10006	81.3	62.6	93.7	59.6	88.9	61.8	88.0	61.3
AgriPro Tam 111	95.4	63.4	68.8	56.8	97.5	61.8	87.2	60.7
AgriPro Jagalene	86.8	62.9	75.4	60.1	92.5	61.7	84.9	61.6
AgriPro NuHills	87.1	63	66.8	56.4	99.1	62.7	84.3	60.7
Ankor	86.6	61.3	77.3	56.9	81.6	58.3	81.8	58.8
AgriPro NuFrontier	62	64.3	75.9	58.5	99.1	58.9	79.0	60.6
Yuma	79.2	61.2	74.3	56.8	82.1	60.8	78.5	59.6
Antelope	81.4	63	70.2	55.8	83.9	60.2	78.5	59.7
Overley	87.9	62.9	62.2	57.4	80.2	61.6	76.8	60.6
AgriPro Dumas	70.5	62.4	62.2	57.8	87.3	58.7	73.3	59.6
Wesley	82.9	60.1	44.2	53	88.7	59.4	71.9	57.5
AgriPro NuHorizon	76.2	62.4	54	57.4	84.6	61.8	71.6	60.5
AgriPro Platte	62.8	62.3	65.5	58.9	77.7	60.3	68.7	60.5
Prairie Red	65.3	60	46.9	53	81	59	64.4	57.3

CSU Dryland Trials; 2005

	Akron		Bennett		Yuma		Julesburg		4 Location NE Average	
	Bu/A	TW	Bu/A	TW	Bu/A	TW	Bu/A	TW	Bu/A	TW
AgriPro Tam 111	23	58.7	28.3	60.6	16.6	56.1	27.4	56.1	23.8	57.9
AgriPro Jagalene	22.2	53.7	31.4	60.1	25.2	57.7	35	57.8	28.5	57.3
AgriPro AP 502CL	25.5	55.7	36.5	61.3	24.3	55.7	29.8	57.3	29.0	57.5
Hatcher	26.7	54.1	35.3	62.6	18	15.7	33.4	57.1	28.4	47.4
Above	27.1	56.4	33.7	61	19.5	57.5	27.9	57.9	27.1	58.2
Prairie Red	26.6	54.3	40.7	61.8	17.4	59	32.3	56.6	29.3	57.9
Yumar	25.6	54.3	33.3	59.7	23.7	57	29	56.1	27.9	56.8
Alliance	25.1	57.1	33.8	61.8	20.7	56.9	27.4	56.4	26.8	58.1
Millennium	22.8	48.8	31.6	60.7	22.6	56.4	31	55.6	27.0	55.4
AgriPro NuHills	25	49.8	38.2	59.4	26.2	54.7	21.7	55.1	27.8	54.8
AgriPro NuFrontier	23.5	55.4	38.1	61.3	22.2	57.9	26.9	57.6	27.7	58.1
GM 10006	28.6	57.5	35.4	60.5	21.7	58	31.9	58.8	29.4	58.7
Avalanche	26.4	56.5	36.3	61.2	25.2	58.8	33.9	58.7	30.5	58.8
Trego	20	56.5	31.7	61.8	13.1	56.5	20.4	59	21.3	58.5

AgriPro Yield Data:

AgriPro Wheat

2004 - 2005 Summary Western High Plains

Variety	2004 Western Plains		2005 Nebraska		2005 Kansas		2004 - 2005 Average	
	Avg Yld	Avg Tw	Avg Yld	Avg Tw	Avg Yld	Avg Tw	Yield	TW
Jagalene	57	59	43	55	53	59	51	58
NuFrontier	55	61	41	57	53	57	50	58
NuHills	55	59	43	56	48	57	49	57
Alliance	55	61	35	56	51	58	47	58
Wahoo	55	61	33	49	50	55	46	55
Millenium	55	60	32	52	50	56	46	56
Tam 111	53	61	34	52	47	56	45	56
GM 10006	53	61	34	54	46	58	44	58
Above	52	59	30	50	47	54	43	55
Trego	53	63	22	47	41	57	38	56
Average	54	61	34	53	49	57		

2005 = Nebraska; Paxton, Sydney

2005 = Kansas; Quinter, Goodland, Manter, Hugoton

2004 = Mantor, Paxton, Sidney, Otis

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICEEXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) Syngenta Seeds, Inc.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER W96-530-03W	3. VARIETY NAME NuGrain
4. ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country) 6515 Ascher Road Junction City, Kansas 66441	5. TELEPHONE (include area code) 785-210-0218	6. FAX (include area code) 785-210-0231
	7. PVPO NUMBER 200600236	

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain ☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country. ☒ YES ☐ NO

10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☐ YES ☐ NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☐ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):

Please see following page.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Exhibit E.***Statement of the Basis of Applicant's Ownership***

The variety for which Plant Variety Protection is hereby sought was developed by Rollin Sears, an employee of Syngenta Seeds, Inc. By agreement between employees and Syngenta, all rights to any invention, discovery, or development made by the employee while employed by Syngenta, were assigned to Syngenta Seeds, Inc., with no rights of any kind pertaining to 'NuGrain' being retained by the employees.

The variety 'NuGrain' is owned by Syngenta Seeds, Inc.